


BROADBAND EXPANSION GRANT APPLICATION

For Fiscal Year 2022

Primary Applicant (Name and Address): Bayfield Wireless PO Box 586 Bayfield, WI 54814	Applications MUST be UPLOADED to ERF via the Commission's website, http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx . Refer to section 2.3 for detailed instructions. Applications are due and MUST be uploaded to ERF no later than: March 17, 2022 at 4:00pm (16:00) Central Time. Late applications will not be accepted.
	Contact for further information: PSCStatebroadbandoffice@wisconsin.gov
	Date: December 1, 2021
<p>The Public Service Commission of Wisconsin is seeking applications for Broadband Expansion Grants. The Commission may award one or more grants during Fiscal Year 2022 to public and private entities that meet the eligibility requirements set forth in Wis. Stat. § 196.504. This grant round will be funded with bond proceeds authorized by the Wisconsin Building Commission pursuant to Wis. Stat. § 13.48(30). As such, successful applicants are subject to the requirements of Wis. Stat. § 13.48(30). Successful applicants will demonstrate a clear and achievable plan to improve broadband communications services in one or more underserved areas in the State.</p>	
<p>Applicant Certification: In signing this application, the undersigned verifies under penalty of perjury that the Applicant and its employees and agents have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition with respect to this application; that no attempt has been made to induce any other person or firm to submit or not to submit an application; that this application has been independently arrived at without collusion with any other proposer, competitor or potential competitor; that this application has not been knowingly disclosed prior to the opening of applications to any other applicant or competitor; that all of the responses and representations of Applicant in this application are true and correct to the best of the undersigned's knowledge, information, and belief; and that Applicant agrees to, accepts, and will comply with all of the terms and conditions respecting this application and any award of a broadband expansion grant as may be established in a grant award Agreement.</p>	
Name of Authorized Representative (Type or Print) Mike Cariveau	Title CEO
Phone (715)280-1900	
Signature of Authorized Representative 	Date March 17, 2022

SUMMARY OF GRANT APPLICATION

Primary Applicant Name Bayfield Wireless (Waypoint Experts, LLC dba Bayfield Wireless)	Amount of Broadband Grant Request (round to nearest dollar) \$119,621
Federal Employer Identification No. 82-1023989	Amount of Matching Funds Pledged (round to nearest dollar) \$40,000
Contact Name and Title Mike Cariveau, CEO	Total Cost of Proposed Project (round to nearest dollar) \$159,621
Telephone Number (715)280-1900	Project Name Central Ashland County Broadband Expansion
E-mail Address(es) mike@bayfieldwireless.com	Type of Proposed Broadband Service (FTTH, Cable, DSL, etc.) Fixed Wireless Broadband
Grant Manager, if different than Primary Applicant	Type of Proposed Project (Last-mile, Middle-Mile, backbone, other) Last Mile
Grant Manager Contact Name	Grant Manager Email Address and Telephone Number
If the application proposes a public-private partnership, list the names, addresses, and FEINs of the partner companies or organizations 1) Bayfield Wireless (Waypoint Experts, LLC dba Bayfield Wireless) 2) Town of Morse, Ashland County, Wisconsin	
Brief Project Description (2 sentences) The planned network will provide fixed wireless RF broadband services to unserved and underserved locations throughout the community. The network will be deployed with state-of-the-art fixed wireless broadband technology including the use of CBRS and LTE.	
Maximum Proposed Download Transmission Speed 100Mb to 1Gb based on location	Maximum Proposed Upload Transmission Speed 100Mb to 1Gb based on location
Minimum Proposed Download Speed to Customer Location 25Mb	Minimum Proposed Upload Transmission Speed to Customer Location 3Mb
County or Counties served by this project Ashland County	Community or Communities served by this project Town of Morse, Town of Ashland, Town of Sanborn

<p>List of the broadband service providers, if any, currently serving the area the applicant proposes to serve</p> <p>Some portions of the service area have no current service provider. Norvado provides service to a portion of the proposed service area.</p> <p>T-Mobile provides service to a portions of the proposed service area.</p>	
<p>Does proposed project serve an <i>unserved</i> area of the State, as defined in Section 1.4 of the application instruction? (yes/no)</p> <p>YES</p>	<p>Is the Applicant certified as a Broadband Forward! Community or Telecommuter Forward! Community, or does the grant project propose to serve a Broadband Forward! Community or Telecommuter Forward! Community? (yes/no)</p> <p>NO</p>
<p>For last mile projects or component the expected number of Business Locations that will have access to the improved broadband service (i.e., total business locations passed or with new service access).</p> <p>35</p>	<p>For last mile projects or components the expected number of Residential Locations that will have access to the improved broadband service (i.e., total residential locations passed or with new service access).</p> <p>184</p>
<p>Of the improved business locations, how many locations are <i>unserved</i>?</p> <p>17</p>	<p>Of the improved residential locations, how many are <i>unserved</i>?</p> <p>16</p>
<p>For providers that are eligible telecommunications carriers will the proposed broadband service be available to Lifeline customers? (yes/no) NO</p>	<p>Are there any programs available for low-income households to access low-cost service or discounts? (yes/no)</p> <p>YES</p>
<p>Is the internet service provider currently participating in the Emergency Broadband Benefit Program? (yes/no) NO</p>	<p>Is the internet service provider currently participating in the Department of Public Instruction and CESA purchasing's Digital Learning Bridge? (yes/no) NO</p>
<p>Did the internet service provider participate in the Public Service Commission's voluntary Broadband Coverage Data Collection in 2021? (yes/no) YES</p>	

FY22 Broadband Expansion Grant Application

Budget & Income Summary



Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary

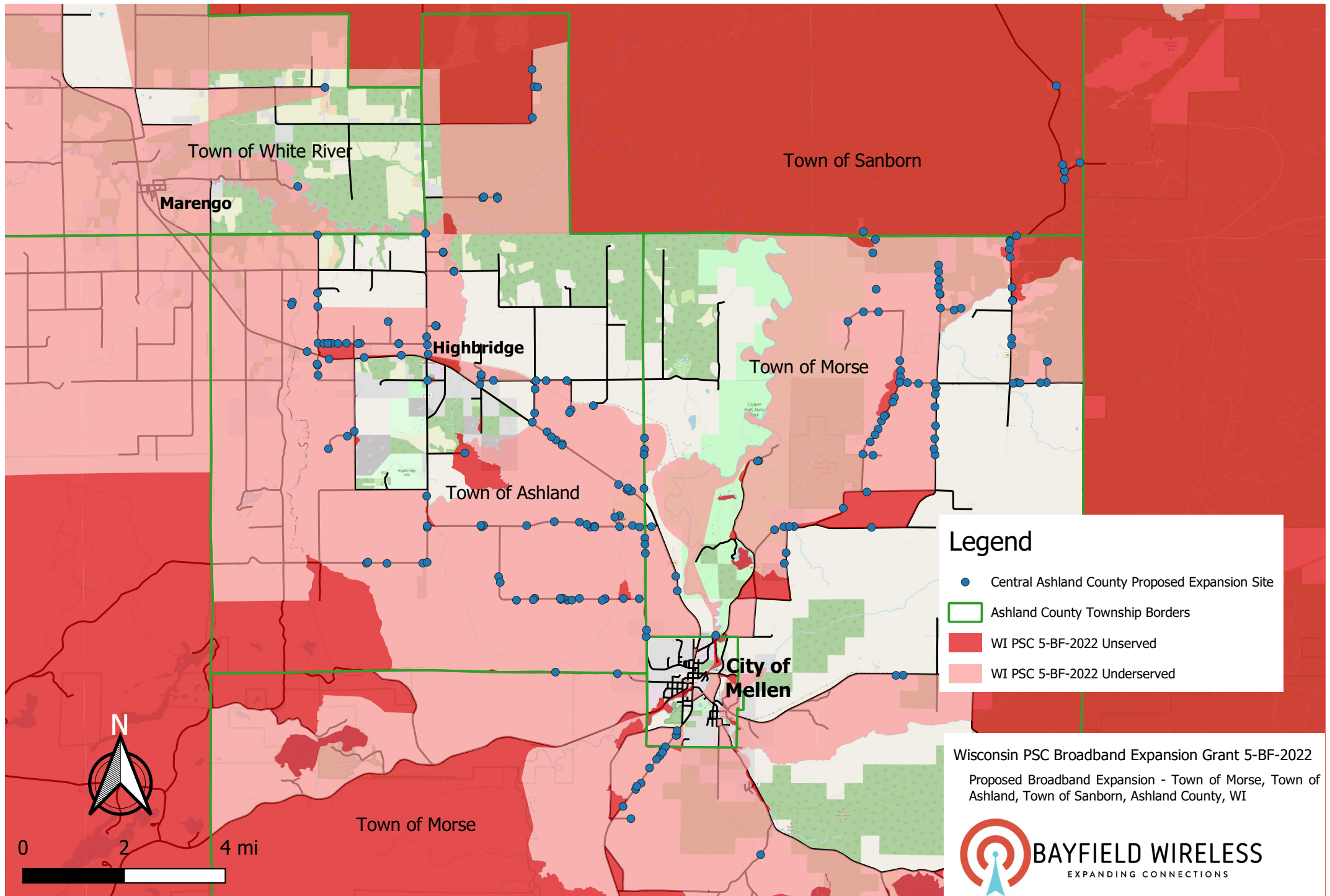
Grant Applicant:	Project:
Bayfield Wireless	Central Ashland County

Budget

Line:	Description / Category:	Grant Funds:	Match:	Total:
1	Contractual, Consultant Fees	\$ 31,021.00	\$ 10,079.00	\$ 41,100.00
2	Equipment	\$ 69,600.00	\$ 22,951.00	\$ 92,551.00
3	Supplies	\$ -	\$ -	\$ -
4	Labor (Salary, Fringe)	\$ 19,000.00	\$ 6,770.00	\$ 25,770.00
5	Permitting, Licensing Fees	\$ -	\$ 200.00	\$ 200.00
6	Travel	\$ -	\$ -	\$ -
7	Other	\$ -	\$ -	\$ -
Total:		\$ 119,621.00	\$ 40,000.00	\$ 159,621.00
				25.1% match requested

Pledged Contributions

#:	Entity:	Entity Type:	Pledge Type:	Pledge:
1	Bayfield Wireless	Applicant	Cash	\$ 25,000.00
2	Town of Morse, Ashland County, WI	Partner	Cash	\$ 15,000.00
3				
4				
5				
6				
7				
8				
9				
10				
Total:				\$ 40,000.00



3.0 GENERAL APPLICATION REQUIREMENTS

3.1 Application organization and format

3.2 Mandatory application requirements

An applicant must include the following information in its application to be eligible for this grant and the application must demonstrate satisfaction of indicated requirements.

3.2.1 Applicant identification and contact information

- a. The name and address of the entity applying for the grant, and the mailing address, telephone number and e-mail address of one or more contact persons representing the applicant.

Bayfield Wireless

PO Box 586

Bayfield, WI 54814

Mike Cariveau, CEO

Email: mike@bayfieldwireless.com

Phone: (715)280-1900

- b. If the application proposes a public-private partnership, the identity and contact information for all application partners.

Town of Morse, Ashland County

402 2nd Avenue

PO Box 227

Mellen, WI 54546

Jeff Ehrhardt, Chairman

Email: ehrhartjeff@gmail.com

Phone: (715)274-2126

- c. The application must show that the applicant is an organization, a telecommunications utility, or a city, village, town, or county that has established a legal partnership or joint venture arrangement with an otherwise qualified organization or telecommunications utility, and as such meets the eligibility requirements set forth in Wis. Stat. § 196.504(1).

*Waypoint Experts, LLC dba **Bayfield Wireless** is a privately held company in the State of Wisconsin. The Town of Morse is a township in Ashland County in Northern Wisconsin.*

Bayfield Wireless and the Town of Morse have established a partnership to develop broadband projects in and around their community in central Ashland County for the benefit of the public.

3.2.2 Description of the project

- a. A static map and description of the area of the State that will be affected by the proposed project.

The map must be accompanied by:

- A URL reference to a spatial file (Geodatabase / Feature Class, or Shapefile or KML) showing the proposed service area. A spatial file including census blocks that intersect the proposed project area is also acceptable.
- The geospatial file of the proposed project must be emailed to pscbroadbanddata@wisconsin.gov by the application deadline.
- PSC staff can provide support to ensure an accurate spatial file is delivered to the Commission. Please contact the State Broadband Office mapping team for mapping assistance at PSCBroadbandData@wisconsin.gov.

*Response: See the **included map** for service area coverage and subscriber locations included in the project for this application.*

The project will be in central Ashland County including parts of the Town of Morse, the Town of Ashland, and the Town of Sanborn.

The blue markers on the included map indicate the existing potential service locations that can be served by the

proposed project within “unserved” and “underserved” areas from the Wisconsin Broadband Map.

- b. If the project area lies within a census block designated as served on the PSC Broadband Map, provide additional documentation to demonstrate the actual broadband service that is available in the proposed project area.

Response: The State of Wisconsin Broadband Map indicates the entire proposed service area is either “unserved” or “underserved.” Prospective subscribers within adjoining “served” areas (as indicated on the Wisconsin Broadband Map) have contacted Bayfield Wireless and reported no service options are currently available to them. This will likely increase the number of potential subscribers the proposed project will be able to serve compared to what is indicated in this application.

- c. An explanation of how the proposed project will increase broadband access. Include information about the:
- Potential and expected number of households served, including number of unserved and underserved locations.
 - Potential and expected number of businesses served, including number of unserved and underserved locations.
 - Expected number of seasonal residents and tourists served.
 - Estimated download and upload speed of the broadband service packages available for purchase.

Response: Within the planned service area, 219 existing address locations in Ashland County will have availability of Fixed Wireless Broadband service with speeds from 25 Mbps to 100 Mbps download and 3Mb to 100 Mbps upload. The existing locations are comprised of 184 residential locations and 35 business locations.

Of the 219 existing address locations in the planned service area, it is estimated that over 80 locations will also have availability of service up to 300 Mbps download and up to

300 Mbps upload. Service of up to 1 Gbps upload and up to 1 Gbps download will be available in the service area as needed on a special-order basis.

Of the existing 219 potential Ashland County address locations in the planned service area, we are expecting a minimum of 100 residential subscribers and 20 business subscribers.

- d. A statement whether the proposed project is targeting the “last mile,” “middle mile,” or backbone portion of the broadband infrastructure.

Response: The project will provide high speed last mile broadband service.

The network will also be designed and deployed as a carrier class MPLS multicarrier network with QOS to provide middle mile transport services to other service providers, business, government, and education as needed. The middle mile portion of the network will provide diverse routing with a combined fiber optic wireline and high-speed wireless mesh.

- e. A description of the broadband service to be provided, including estimated download and upload speeds, whether the speed is based on dedicated or shared bandwidth, and the technology that will be used. This description may be illustrated by a map or schematic diagram, as appropriate.

Response: The project will provide high speed “fiber fast” fixed wireless broadband service in the planned service area in central Ashland County. The service will provide dedicated speeds of up to 100 Mbps download and 100 Mbps upload for standard service and up to 1 Gbps for special order subscriber requirements.

- f. For middle mile projects:
- Identify last mile broadband service providers that will connect to the middle mile facility.
 - If the participation of last mile providers is uncertain or cannot be disclosed publicly at the time of the application,

- describe the providers that could interconnect under appropriate circumstances.
 - How long would it take for last mile connections to result?
 - Describe process for use of right-of-way (ROW) in collaboration with others digging or burying facilities (Dig Once program, etc.).
- g. A schedule by which the applicant intends to complete the components of the proposed project. The project period is up to 24 months.

Response: Planned Schedule Milestones

Milestone Description	Completion Date
<i>Detailed project plan development complete</i>	<i>May 2022</i>
<i>Detailed engineering and design begin</i>	<i>May 2022</i>
<i>Detailed engineering and design complete</i>	<i>Aug 2022</i>
<i>Sales & marketing begins</i>	<i>May 2022</i>
<i>Construction subcontracting complete</i>	<i>Aug 2022</i>
<i>Permit applications complete</i>	<i>Jul 2022</i>
<i>Equipment acquisition plan complete</i>	<i>Sep 2022</i>
<i>Required permits and approvals complete</i>	<i>Oct 2022</i>
<i>Construction begins</i>	<i>May 2022</i>
<i>Tower and distribution network equipment installation complete</i>	<i>Nov 2023</i>
<i>Backhaul network complete</i>	<i>Aug 2022</i>
<i>Phase 1 Subscriber provisioning begins</i>	<i>Aug 2022</i>
<i>Phase 1 Subscriber provisioning completed</i>	<i>May 2024</i>
<i>Project completion</i>	<i>May 2024</i>

3.2.3 Itemized Budget (all amounts should be rounded to the nearest dollar)

- a. In addition to the Summary of Project Budget that is included as page 3, applicants should include a price list or quote for any equipment the applicant intends to purchase, including capital expenditures. The application should also indicate whether any facilities involved would be owned, rented, or leased.

Response: Bayfield Wireless will own and operate the network and provide services and support to Customers.

- b. The application must show that the grant, if awarded, will not subsidize the expenses of a telecommunications provider or the monthly bills of telecommunications customers. For purposes of this grant program, subsidize means a contribution to the operating costs, including profit, of the telecommunications provider.

Response: The grant will be used exclusively to fund construction of the proposed network.

- c. The application must show that the grant funds requested will be used for the sole purpose of constructing broadband infrastructure in the underserved areas covered by the application. Construction of broadband infrastructure may include any of the following:

- Project planning that takes place during the performance period.
- Obtaining construction permits.
- Construction of facilities, including construction of both “middle mile” and “last mile” infrastructure.
- Installation and testing of the broadband service.

Response: The grant will be used exclusively to fund construction of the proposed network.

3.2.4 Priority factors supporting the application

- a. **Matching funds.** A description of the matching funds the applicant will invest in the proposed project, if any. For each element, indicate the type of match (cash, salary expense, or in-kind contribution). If the application is submitted by a partnership, identify the partner responsible for providing each element of the proposed matching funds. *Note: The requirement for this information is satisfied via inclusion of the completed Funding Statement as page 4 of the application.*
- If available, provide documentation to support an offer of matching funds (minutes of a town board meeting, a letter from a prospective customer or local government official, etc.).
 - Matching funds contributions must be a firm commitment of funding to the project. Contributions that vary based on the amount of actual sales, customer contributions, or other criteria will not be given weight.

Response: See the Funding Statement on page 4 of this application. Bayfield Wireless will make a cash contribution of \$25,000. The Town of Morse will make a cash contribution of \$15,000.

The total matching contribution for the project is \$40,000.

- b. **Public-private partnerships.** If the public-private partnership is memorialized in a joint venture agreement or other writing, provide a copy of that agreement. If the partnership has not been reduced to a written agreement, provide a short description of the management role, financial commitment, or other contribution to the project for each participating partner.
- In scoring this element, information regarding active engagement of diverse communities in the planning, permitting, or marketing of the project will be given weight as well.

*Response: **Bayfield Wireless** has entered a public-private partnership for the proposed project which has unanimous support and commitments from the following partners:*

*1) **The Town of Morse, Ashland County, Wisconsin***

- c. **Existing broadband service.** A list of the broadband service providers, if any, currently serving the area the applicant proposes to serve. In scoring this element, the following factors will be taken into account:
- The degree to which the proposed project avoids duplicating existing broadband infrastructure.
 - The application of a wireless broadband service provider proposing significant overlap with existing broadband service in addition to service to an unserved area will not be given priority consideration.
 - Provide a list of all landline broadband service providers (DSL, cable or fiber to the home) and fixed wireless broadband service providers that overlap the footprint of the proposed broadband project.
 - If known, provide an estimate of the customers within the proposed footprint that are served by competing landline and fixed wireless broadband service providers, and the download/upload speeds offered by those competing service providers.
 - Provide a list of mobile wireless broadband service providers that overlap the footprint of the proposed project.

- If known, provide an estimate of the customers within the proposed footprint that are served by competing mobile wireless broadband service providers, and the download/upload speeds offered by those competing service providers. (The presence of existing mobile wireless providers does not contribute to or affect the evaluation of existing broadband service in the project area for purposes of priority consideration, but provides a more complete picture of the broadband options available to residents.)

Response: 100% of the locations in the proposed service area are classified as “unserved” or “underserved.”

- For middle mile projects, describe the unserved and underserved areas that the middle mile route will transit. In scoring this element, the following factors will be taken into account:
 - The number of unserved and underserved service locations that could potentially connect through the proposed middle mile route.
 - The degree to which the middle mile route will reduce the cost of extending fiber to the premises broadband service to business and residential service locations in an unserved or underserved area.
 - The degree to which the proposed middle mile route avoids duplicating existing and planned fiber to the premises broadband infrastructure.

- d. **Project impact.** A description of the geographic area and the population, both in terms of absolute numbers and likely users, which will be served by the proposed project. Indicate the number of anticipated residential and business customers in the project area, if known. Explain the speed and quality of internet service that will be available. Include information about the range of packages available for purchase. Provide details on any low-income access programs and steps the project will take to support adoption.

Response: Of the existing 219 potential Ashland County address locations in the planned service area, we are expecting a minimum of 100 residential subscribers and 20 business subscribers. This estimate is very conservative based on an adoption rate of over 90% Bayfield Wireless realized in other neighborhoods having similar choices on

previous broadband expansion projects. Based on that experience, **it would not be unrealistic to see adoption by 150 to 200 subscribers in the service area for the proposed project.**

The network will be an expansion of the capabilities Bayfield Wireless has already deployed in other areas since 2018. Based on this design, speed capabilities for the planned service area are projected as indicated in the following table (depending on the specific subscriber location).

Download Capability	Upload Capability	% of Proposed Service Area
25-50Mbps	3-10Mbps	15%
50-100Mbps	10-100Mbps	70%
100-300Mbps	20-300Mbps	10%
300-600Mbps	100-600Mbps	3%
>600Mbps	>600Mbps	2%

The capabilities for each subscriber location will enable the subscriber to select the package of their choice, and in most cases, be able to upgrade or downgrade with a phone call or email request. Bayfield Wireless offers a subscription change to subscribers up to once per month. This provides great flexibility and future growth potential for subscribers who have been predominantly subscribing to packages of 40Mbps download and 5Mbps upload during 2021-2022.

Bayfield Wireless currently offers the following standard packages which will also be offered across the new area served by the proposed project (subject to location availability). Additional packages will be offered on a custom basis to meet special needs of individual subscribers. Higher speed standard packages will be offered in the future as market demands require.

Package	Download Mbps	Upload Mbps	Monthly Recurring Charge
Ignite 25	25	3	\$52.95
Max Turbo 25	25	4	\$52.95
Ignite 40	40	5	\$67.95
Power 50	50	10	\$72.95
Ignite 60	60	10	\$89.95

<i>Power Plus 75</i>	<i>75</i>	<i>15</i>	<i>\$99.95</i>
<i>Ignite 100</i>	<i>100</i>	<i>15</i>	<i>\$119.95</i>
<i>Power Turbo 100</i>	<i>100</i>	<i>20</i>	<i>\$129.95</i>

Bayfield Wireless will establish a qualification protocol for low-income discounts in collaboration with the Town of Morse. We intend to offer discount programs for low-income households in the community. With assistance and input from the local government, we will work to assure a program that is most beneficial to the community. The details of this program will be formulated and offered during the construction and deployment of the project.

- e. **Scalability.** A description of how the proposed project could expand or improve the broadband service it delivers, while maintaining the quality of its broadband service. This description should include specific projected increases in the following parameters that are known at the time of the application:

- The number of users.
- The number of network nodes.
- The number of services provided.
- The geographic area served by the project.
- The number of aggregation points in middle mile project.

This description may also include a discussion of possible growth potential that is outside the commitment the applicant is making as part of its application.

Response: This project is critical to expanding the Bayfield Wireless network to serve additional adjoining “unserved” and “underserved” areas in future expansion projects. Upon completion of this project, Bayfield Wireless will leverage the network expansion from this project to continue to make plans to expand broadband services into adjoining unserved and underserved areas within Ashland County, Bayfield County, and Iron County.

For middle mile projects, describe the spare or unused fiber capacity in the route and any future projects planned to use that capacity in the future. For purposes of the question, planning can mean either specific uses

already the subject of contract or serious negotiation, or tentative uses that may or may not actually be contracted for in the future.

- f. **Economic development**. A description of how the proposed project will promote job growth or retention, expand the property tax base or improve the overall economic vitality of the municipality or region. This description may be supplemented with a letter from one or more persons discussing the potential economic impact the project could have for that individual or business. In scoring this element, the following factors will be taken into account:
- A discussion of potential economic impact the project could have for an individual business located in the project area.
 - An explanation of how an improved download and upload transmission speed could better support a specific business in the project area.
 - An explanation of the likely impact improved broadband service could have on residential property values, supported by local sales data if available.
 - A demonstration of how improved broadband service to a residential portion of the project could benefit a telecommuting population.
 - A demonstration of how the speeds and service being offered by the project fits with current and future economic needs of the community and local businesses.

Response: The project will provide high speed broadband service options for 219 rural address locations. Without availability of the proposed broadband service, it is unlikely businesses will expand in the service area. This project is critical to continued economic development in the community. Telecommuting capabilities will be enabled within the service area and provides a key ingredient for economic development.

If the network is not constructed to provide high-speed broadband services, there will continue to be a substantial economic decline for the Towns in the project area as the availability of broadband increasingly becomes one of the top factors for real estate purchases and investments in the service area and surrounding communities.

Since the 2020 Covid-19 pandemic started, Bayfield Wireless has had a dramatic increase of weekly inquiries about high-speed Internet service options from individuals

desiring to make the area in and around the proposed project area their principal residence rather than a tourist destination or second home. Most of these individuals are also indicating they will need high-speed Internet to do business from these remote locations which in many cases are “underserved.” Because of the desirability of the Ashland County area, this project will enable significant gains in economic development of the area by enabling an increase in the population of working residents and businesses.

- g. **Effect upon broadband service to adjacent areas.** A description of whether the proposed project will or will not impair the ability of a broadband service provider or competing broadband service provider to extend broadband service to areas adjacent to the proposed project area.

Response: The network is designed to be expanded and scaled to meet the needs of surrounding communities. It is also designed to be available for middle mile transport use by other service providers to provide complimentary and/or competitive network services on a wholesale basis.

The network will be operated as a carrier neutral service aimed at attracting multiple service providers to share facilities for network transport, fixed wireless and mobile wireless access services. We will actively work to develop partnering relationships with other carriers and promote coopetition in the interest of making a wide variety of greatly needed services available to the community over time. We are actively implementing and planning network peering relationships with other providers including (but not limited to) Norvado, CenturyLink, Charter, and AT&T. This approach is critical to the future economic well-being of the central Ashland County community.

3.2.5 Other information supporting the application

- a. A description of applicant’s history or experience constructing broadband communications facilities in the State and elsewhere.
- If applicable, an applicant must comment upon the status of all prior broadband expansion grant projects, including the type of broadband technology used, the facility route actually built or installed, the

number of residential and business customers actually connected, and other relevant details of the prior project(s).

- An applicant may also comment on broadband construction projects undertaken in prior years that were not funded in part by the Broadband Expansion Grant program.

Response: Mike Cariveau, the founder of Bayfield Wireless in 2016, has substantial experience over the past 40 years in information technology, telecommunications, and civil engineering. He has founded, operated, and sold multiple companies including HeatSeeker Technology Partners, Inc., which he owned for 19 years until 2016, providing IT cloud services, data center services, and telecommunications services to business, government, healthcare, and telecommunications service provider Customers.

Over 50 independent telecommunications service providers were among the client base in Minnesota, Iowa and Wisconsin. Design, operation and support services were provided to these telecommunications providers to create their service delivery platforms including fiber optic networks, wireless networks, MPLS service provider core networks, Carrier Ethernet 2.0 service provider networks, IP telephony and IP video. Work included some of the original designs in 2004-2005 that led to broadband expansion in Door County, Wisconsin.

In addition to being a service provider's service provider, multiple partnerships and joint ventures were led by Mike to create the fabric of wide area networks in rural areas that were unserved and underserved. In 2006 the Company built and licensed its propriety network in rural Minnesota that ultimately was acquired by Windstream Communications, a national service provider. The Company operated this network for Windstream in Minnesota until 2014.

In 2014, the Company created partnerships with 6 other service providers including NU Telecom, Hanson Communications, CenturyLink, Frontier, Farmers, and Federated Telecom, to create a multi-10Gb service provider network to most of the rural towns in central Minnesota

between the Twin Cities and South Dakota. Mike led all the network architecture, design, engineering, project management, and construction to complete the project along with over 200 miles of new fiber during a 5-month period at which point services were turned up for the first 60 government and education Customers.

Since the beginning of 2017, Mike has led Bayfield Wireless to develop partnerships in northern Bayfield County to develop cost effective solutions to provide broadband and related services for the unserved and underserved rural areas of the community. After receiving two Wisconsin PSC Broadband grant awards in May 2018, Bayfield Wireless began the construction of the new network in the Town of Bayfield, the Town of Russell and the Tribal lands of the Red Cliff Band of Lake Superior Chippewa.

By April 2019 the network was placed in service over a large geographic area and service provisioning to network subscribers commenced. Since that time, the network expansion has continued with new subscribers being provisioned continually.

During 2020 Bayfield Wireless established a partnership with Bayfield Electric Cooperative to utilize existing powerline infrastructure to cost effectively extend the reach of the Bayfield Wireless network. This has enabled the Company to deploy high-speed "fiber-fast" Internet service at difficult to reach locations using state-of-the-art wireless technologies.

In 2020 Bayfield Wireless was one of 271 qualified bidders nationwide in the long-awaited FCC auction for the new CBRS wireless frequency band. The Company was one of 228 successful bidders and secured new wireless spectrum to ensure Bayfield Wireless can continue its expansion of high-speed Internet service throughout Bayfield, Ashland, Price and Sawyer counties.

In April 2021 Bayfield Wireless received a third Wisconsin PSC Broadband grant award and immediately began the

construction of a significant expansion of the network throughout the Town of Bayview, the Town of Barksdale, and the Town of Washburn.

Bayfield Wireless has successfully launched its state-of-the-art broadband services to the community and currently has substantial community support with 100 percent Customer satisfaction. Bayfield Wireless is uniquely positioned to bring a high-quality cost-effective broadband solution to the adjoining communities in the expanded service area proposed in this project.

This background and experience will ensure the success of broadband expansion in central Ashland County.

- b. A description of how the proposed project will or will not duplicate existing broadband infrastructure.

Response: Bayfield Wireless, has established Public/Private Partnerships with Bayfield County, the Red Cliff Band of Lake Superior Chippewa, the Town of Barksdale, the Town of Bayfield, the Town of Bayview, the Town of Russell, and the Town of Washburn. Bayfield Wireless has worked with these Partners, along with the City of Bayfield, in a variety of intergovernmental planning meetings over the past five years to collaborate on needs and solutions for providing needed broadband and cellular services on the northern Bayfield County peninsula.

Bayfield Wireless has also engaged in collaboration with the Town of Morse in Ashland County to coordinate efforts. Our collaboration will help assure broadband expansion efforts are prioritized and focused for the greatest benefit to the public in need of broadband services while minimizing unneeded duplication. Bayfield Wireless is also in the process of engaging with other communities and at the County level in Ashland County in order to repeat successes in Bayfield County as broadband expansion efforts are continued by the Company in northern Wisconsin.

- c. A description of an applicant's financial ability to undertake the proposed broadband construction project.

This may include information such as the number of years the company has been in operation, documentation of successful completion of similar infrastructure projects, evidence that sufficient funds are available to cover project expenditure and match, customer turn-over rates, and credit rating.

Response: Bayfield Wireless has existing private capital reserves required to meet its cash-flow and grant matching commitments in connection with the project proposed in this application. Bayfield Wireless owns heavy equipment, aerial trucks, vehicles, and other equipment required for the construction of the proposed project. The Company has its own certified team of OSHA – ANSI – NATE compliant professional tower climbers to perform the necessary work and maintenance for the project. The Company also has existing subcontractor relationships for all specialty areas of the construction such as cranes and large tower steel erection services.

Bayfield Wireless is a privately held company founded in 2016 to focus on broadband expansion needs in the communities which have entered Public/Private Partnerships with the Company. As a new organization with primary development activities directly involving 2018 and 2021 Wisconsin PSC grant awards, Bayfield Wireless is currently subject to audit requirements of the Wisconsin PSC grant program. Oversight and records can and are currently being provided on a regular basis. As a privately held Company, Bayfield Wireless will submit the required financial statements as confidential documents as required.

- d. For middle mile projects, state the terms under which the applicant will make its middle mile fiber resource available to last mile providers. Without disclosing project-specific or customer-specific negotiated rates for service or access, state whether access to the middle mile fiber resource will be offered to last mile providers at a rate that is reasonable

and common to the industry. Describe any restrictions or limits that may limit the availability or interconnection with the middle mile route.

- e. For middle mile routes, state the amount of fiber capacity, by number of fiber strands in a cable, that the applicant has been reserved for public use. Describe any commitment or tentative discussion indicating the local government or State agency that might use those fiber strands, and for what purpose. Describe any restrictions or limits that may limit the public use (e.g. a possible use conflicts with an existing program covering the same subject matter).
- f. A description of how the proposed project will affect the ability of individuals to access health care service from home, including any impact upon the costs of those services.
 - Specific information from a hospital or clinic in the project area that currently uses or intends to use home-based telemedicine equipment to enhance access health care service would best illustrate this point.

Response: This service will provide state of the art services to residents that will enable significant advances in the community for healthcare, education, and teleworking. The network will provide services needed to support real time video applications in health care and distance learning. Combining these capabilities with health education resources on Internet 2 will enable significant advances in extending world class healthcare to the area. In some areas to be served, there is currently no availability of any communications services including telephone.

During 2020-2021 with the Covid-19 pandemic, Bayfield Wireless received many requests resulting from people needing to stay quarantined at home. The Company gave provisioning and expansion priority to special cases involving health care workers, teachers and students required to utilize high-speed Internet services. Bayfield Wireless provides services that have added a level of health care safety enabling emergency communications to numerous residents who are living in locations otherwise "off-the-grid." We have been unable to keep up with the overwhelming demands of 2020-2021, especially in areas that were not yet covered by our future expansion plans such as what is proposed in this project. The proposed

project will make a dramatic improvement in the ability of our communities and residents to safely adapt to health care needs and requirements as we are able to tackle additional broadband expansion areas with the assistance of the Wisconsin Broadband Grant program.

- g. e. A description of how the proposed project will affect the ability of students to access educational opportunities from home.
- Specific information on the likely number of students that will benefit from improved access to educational opportunities from home would be useful.
 - Specific information regarding educational programs that are currently available for students in the project area would be useful.

Response: Networks previously designed, owned and operated by the Bayfield Wireless team include multi-city K-12 video distance learning facilities and integration with Internet 2 and Wisconsin BadgerNet. This experience will be carried forward to assure the network is designed to serve as an integral part of educational initiatives in the community going forward.

- h. A description of actions taken by a city, village, town, or county in support of the grant application that have not been discussed in the context of a public-private partnership above, including but not limited to:
- The contribution of funds, easements or permissions to use publicly-owned real estate, construction materials, or other items of value to the grant project.
 - The contribution of in-kind assistance to the grant project in the form of waived fees and expenses for obtaining use permits and permissions.
 - The contribution of other items of benefit to the grant project, such as public outreach and education, vehicles, water, etc.
 - Certification as a Broadband Forward! Community or Telecommuter Forward! Community.

Response: The Town of Morse is currently considering necessary resolutions to become a certified Broadband Forward! and Telecommuter Forward! community in Wisconsin.

The Town of Morse is providing matching funds of \$15,000 for the proposed project (see the attached Exhibit for the Town's approved grant matching and partnership resolution).

- i. Letters and messages in support of the application submitted by prospective customers, local government officials, and other interested persons.

Response: See letters of support in the attached Exhibits

- j. Any other equitable factor that the applicant desires to discuss, including one or more of the factors in Wis. Stat. § 196.03(6) that the applicant believes its project would advance. In discussing this element, the following information may be useful:
 - Technical support and training materials that the applicant intends to provide.
 - Information that the applicant intends to use to promote better broadband adoption and use.
 - A description of a program or outreach to provide assistance to individuals of low income.

Response: Bayfield Wireless in cooperation with the Town of Morse, in Ashland County, Bayfield County, the Red Cliff Band of Lake Superior Chippewa, the Town of Barksdale, the Town of Bayfield, the Town of Bayview, the Town of Russell, and the Town of Washburn, will continue to lead and collaborate with surrounding communities to make substantial gains in needed broadband expansion in Bayfield County and Ashland County, Wisconsin. We will continue to collaborate and partner with other service providers in surrounding communities including Norvado, CenturyLink, Charter Communications, Verizon, AT&T, and others. We will work to evolve the needed services forward in a fashion that makes the most effective use of public funding while meeting the needs of our communities.

4.0 EXHIBITS

TOWN OF MORSE

Jeff Ehrhardt, Chairman
Theresa Koosmann, Clerk/Treasurer

Ashland County
Mellen, WI 54546

Ken Koosmann, Supervisor
Jamie Peters, Supervisor

Town of Morse Internet Grant Matching Funds

WHEREAS: Town of Morse, Ashland County, Wisconsin has agreed to partner with Bayfield Wireless, P.O. Box 586, Bayfield, WI 54814 for a Town of Morse broadband grant proposal that will be submitted by Bayfield Wireless to the Public Service Commission of Wisconsin (PSCW) Broadband Expansion Program for the Fiscal year 2022/2023 grant cycle.

WHEREAS, the Public Service Commission of Wisconsin (PSCW) Broadband Expansion program is available to eligible applicants; and

WHEREAS, the Town of Morse understand that the majority of the targeted areas included in the grant proposal are not served or underserved meaning they do not get download speeds meeting 25 Mbps and 3 Mbps upload speeds put forth by the FCC ruling of 2017 and is working in partnership with Bayfield Wireless to improve broadband in those specific areas of the Town of Morse; and

WHEREAS, Bayfield Wireless will compile a competitive Broadband Expansion grant application(s) to provide badly needed broadband services to homeowners and businesses in the identified areas. Bayfield Wireless engineering experts will design, build, and operate the proposed network within those areas.

WHEREAS, Bayfield Wireless will work with landowners located in Town of Morse to obtain easements and permits on and across and into the indicated properties to engage activities to construct the project in compliance with all existing rules and regulations; and

WHEREAS, the Broadband Expansion grant process is extremely competitive; and applications that demonstrate a public private partnership are evaluated higher than those that do not; and

WHEREAS, the broadband in Town of Morse is a vitally important topic at the Town of Morse monthly Comprehensive Planning Committee meetings over the last two years as the country tries to navigate Covid-19 and operating remotely relying on broadband.

WHEREAS, letters of support to collaborate are being received from local residents and businesses that may receive benefits from the application, contingent upon grant approval.

NOW, THEREFORE, BE IT RESOLVED that the **Town of Morse agrees to provide \$15,000** as part of a matching grant with Bayfield Wireless for the purpose of building a comprehensive broadband network solution within the Town of Morse contingent upon the grant award.

Submitted this 16th day of March, 2022.

Bayfield Wireless

By (Signature):



By (Print): MIKE CARIVEAU, CEO

Town of Morse, Ashland County, WI

By (Signature):



By (Print): Jeff Ehrhardt, Chairman

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